

## CASO CLÍNICO/CASE REPORT

# Pregnant Without a Uterus: A Case of Pseudocyesis Preceding Psychosis Grávida Sem Útero: Um Caso de Pseudociese a Preceder Psicose

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## ABSTRACT

Pseudocyesis is an uncommon syndrome in which a woman firmly believes to be pregnant, and manifests signs and symptoms of pregnancy, in the absence of true gestation. A woman of 37 years of age, hysterectomized at 34 and was currently divorcing an 85-year-old vasectomized man, after engaging in an extra-conjugal relationship. Soon after, she developed signs and symptoms of pregnancy and the belief of being pregnant. After being exposed to additional stressors such as sleep deprivation, she presented for psychiatric evaluation with a psychotic episode, centered around a delusional pregnancy. She was admitted and treated with antipsychotics, which enabled full remission, matching a diagnosis of brief psychotic disorder. When the belief in pregnancy takes the form of a delusion, it is arguably easier to treat than as an overvalued idea, or pseudocyesis vera. Although little is known about prognosis, psychotherapy may play an important role in relapse prevention.

## RESUMO

A pseudociese é uma síndrome psicopatológica incomum em que uma mulher acredita firmemente estar grávida, e manifesta sinais e sintomas de gravidez, na ausência de verdadeira gestação. Descrevemos aqui o caso de uma mulher de 37 anos, hysterectomizada aos 34 que se encontrava a divorciar-se de um homem de 85 anos, vasectomizado, e que após ter-se envolvido num relacionamento extraconjugal desenvolveu sinais e sintomas de gravidez e a crença de estar grávida. Após exposição a factores de stress adicionais, como privação de sono, desenvolveu um episódio psicótico, centrado num delírio de gravidez. Foi internada e tratada com antipsicóticos, com remissão total, compatível com um diagnóstico de perturbação psicótica breve. Quando a crença errónea de gravidez toma a forma de uma ideia delirante, é possivelmente mais fácil de tratar do que como uma ideia sobrevalorizada, ou pseudociese vera. Apesar de se saber pouco sobre factores prognósticos, a psicoterapia pode ter um papel fundamental na prevenção de recidiva.

**Palavras-chave:** Pseudopregnancy/psychology; Psychotic Disorders / etiology

**Keywords:** Pseudogravidez/psicologia; Perturbações psicóticas/etiologia

## INTRODUCTION

Pseudocyesis is a psychopathological clinical syndrome in which a woman firmly believes to be pregnant, and manifests signs and symptoms of pregnancy, in the absence of true gestation.<sup>1,2</sup> Patients may show abdominal

enlargement, menstrual irregularities, subjective perception of fetal movement, breast changes, and labor pains at the expected date of delivery.<sup>3</sup>

It was first described by Hippocrates around 300 BC<sup>1</sup>, but the term *Pseudo* (false) *cyesis* (pregnancy) was only

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coined in the XIX century, replacing earlier pejorative designations. In modern classifications, pseudocyesis is included in somatoform categories: *Other specified somatic symptom and related disorders* in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and *Other somatoform disorders* in the International Classification of Diseases (ICD-10).<sup>4,5</sup>

Pseudocyesis is a rare condition in modern western cultures but more common in underdeveloped countries.<sup>3</sup> The incidence is higher in settings that place high social pressure on women to become pregnant, such as male-dominated societies where infertility usually results in divorce or a second marriage.<sup>3</sup> The access to education and healthcare help to identify uncertain pregnancies earlier and more accurately in high-income countries.

The etiology of pseudocyesis is presumably multifactorial, involving psychological and neuroendocrine mechanisms that interact reciprocally. The classic *psychosomatic hypothesis*<sup>3,6,7</sup> suggests that an intense desire or fear of becoming pregnant can create internal conflicts and disrupt the hypothalamic-pituitary-ovarian axis, resulting in signs and symptoms of pregnancy. The *somatopsychic hypothesis*<sup>3,6,7</sup> proposes that minor body changes are primary in initiating the false belief in susceptible personalities. The *psychophysiological hypothesis*<sup>3,6,7</sup> relates that chemical alterations in the nervous system produced by major depressive disorder or stress may trigger the development of pseudocyesis, through the interaction with the neuroendocrine system. Other predisposing psychological processes include ambivalence or conflict regarding gender, sexuality, or childbearing,<sup>3,8</sup> a tendency to use somatization and denial as coping style,<sup>9</sup> or a grief reaction to loss following a miscarriage, tubal ligation, or hysterectomy.<sup>3,8</sup> Patients may also present a history of severe childhood sexual abuse or deprivation, or disturbance of family vitality and separation anxiety.<sup>3</sup>

Clinical variants of pseudopregnancy have been described. Delusional pseudopregnancy occurs in psychotic patients but does not necessarily entail the physical manifestations of pregnancy. The factitious variant is distinguished by its intentionally deceptive behavior to convince others of the pregnancy to obtain secondary gains. Erroneous pseudopregnancy is characterized by an incorrect belief of pregnancy, where there are early and often vague signs or symptoms of pregnancy, that is easily rectified by a false pregnancy test. Pseudocyesis vera is considered to range from mild, involving only amenorrhea or oligomenorrhea, to severe, encompassing other major signs and symptoms.<sup>1</sup>

## CASE REPORT

A woman of 37 years from Brazil, working as a self-employed beautician. She and her three siblings were raised in a violent home environment. Her parents got divorced when she was four years old, and her mother remarried when she was eleven. Her father did not maintain contact.

She was married for 14 years to a man 45 years older, who had been vasectomized and did not want any more children.

At the beginning of the marriage, she was concerned with achieving safety and financial security, only later becoming aware of how much she wished to conceive.

She had never been pregnant and she had been hysterectomized three years earlier, due to myomas. Unsatisfied with her marriage, she engaged in an extra-conjugal relationship, and soon after developed signs and symptoms of pregnancy – abdominal distension, subjective sensation of fetal movement, breast enlargement and galactorrhea. Although she was aware of not having a uterus, she was sure to have an ectopic pregnancy, even sharing pictures of her enlarged abdomen on social media.

When she considered to be five months pregnant, an excessive workload led to a critical disruption of her sleeping pattern for about one month. This disturbance prompted disorganization of her thought and behavior, and she was brought to the hospital after being found agitated and shouting praise to God in a supermarket. Upon psychiatric observation, she presented with a delusional pregnancy, behavioral disturbances and sleep deprivation, with no evidence of mood disorder, lasting less than one week.

She was admitted and treated with risperidone 3 mg and quetiapine 50 mg, with full remission of the psychotic symptoms within 12 days. She presented good insight into her condition, and had no subjective or objective signs of pseudocyesis, matching a diagnosis of brief psychotic disorder.<sup>4</sup>

She reported no significant personal or family history of mental or endocrinological illnesses or gestational losses. No hormonal profile was traced, since she no longer presented with physical symptoms of pregnancy upon admission.

## DISCUSSION

In this case, several risk factors, such as coming from an underdeveloped country and having a chaotic childhood environment, with abuse and emotional deprivation, interact with a fundamental psychological split – the conflict between the desire of childbearing and the loss of reproductive capacity. A belief in pregnancy may act as a defense mechanism against confrontation with a difficult reality.<sup>3</sup> Phenomenologically, some authors have considered pseudocyesis an overvalued idea, which, although preoccupying the patient to an abnormal degree, arises in a way which is comprehensible to some extent.<sup>10</sup> In this case, additional stressors precipitated a psychotic episode, whose central content was a delusional pregnancy.

Although there is a risk of relapse into psychosis, M showed good response to treatment, good insight and she returned to her previous level of functioning. There have been reports of recurrence of pseudocyesis,<sup>1</sup> although literature is lacking. There are even fewer reports of pseudocyesis preceding psychosis. Continuing psychological interventions may reduce the risk of relapse by helping the patient to better integrate her experience and predisposing factors.

Pseudocyesis is an uncommon condition in contemporary western culture, though more common in different cultural

settings. The rise in migrations makes it imperative to acknowledge different cultural realities. Delusional pregnancy is arguably easier to treat than pseudocyesis vera. Although little is known about prognosis, psychotherapy

may play an important role in relapse prevention. Further research is needed to better understand the neuroendocrine and psychological dynamics of pseudocyesis.

### RESPONSABILIDADES ÉTICAS

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**RF:** Substantial contribution to the observation and treatment of the patient, conceptualization of the manuscript, review of existing literature, drafting of the body of the manuscript, critical review and approval of the final version.

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### References

- O'Grady JP, Rosenthal M. Pseudocyesis: a modern perspective on an old disorder. *Obstet Gynecol Surv* 1989;44:500–511.
- Tarin JJ, Hermenegildo C, García-Pérez MA, Cano A. Endocrinology and physiology of pseudocyesis. *Reprod Biol Endocrinol*. 2013;May 14;11:39. doi: 10.1186/1477-7827-11-39.
- Azizi M, Elyasi F. Biopsychosocial view to pseudocyesis: A narrative review. *Int J Reprod Biomed*. 2017;15:535-42.
- American Psychiatric Association. Somatic Symptom and Related Disorders. In: Diagnostic and statistical manual of mental disorders: DSM-5. Chicago: APA; 2013. p. 309–27.
- International Classification of Diseases: ICD-10 [Internet]. World Health Organisation; 2019 [cited 2023 Sep 21]. Available from: <https://icd.who.int/browse10/2019/en#/F45.8>
- Knobil, Ernst, Jimmy D. Neill, editors. *Encyclopedia of Reproduction*. New York: Academic Press; 1998.
- Starkman MN, Marshall JC, La Ferla J, Kelch RP. Pseudocyesis: psychologic and neuroendocrine interrelationships. *Psychosom Med*. 1985;47:46-57.
- Sadock BJ, Sadock VA, Ruiz P, editors. *Synopsis of Psychiatry*. 11th ed. Philadelphia: Lippincott Williams and Wilkins; 2015.
- Starkman MN. Impact of psychodynamic factors on the course and management of patients with pseudocyesis. *Obstet Gynecol*. 1984;64:142-5.
- Mortimer A, Banbery J. Pseudocyesis preceding psychosis. *Br J Psychiatry*. 1988;152:562-5.